

EXHIBIT 100

PUBLIC

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

- - - - - x
UNITED STATES, et al., :
Plaintiffs, :
v. : Case No.
GOOGLE, LLC, : 1:23-cv-00108
Defendant. :
- - - - - x

Monday, March 4, 2024
Washington, D.C.

Job No. CS6484199
Videotaped Deposition of:
WAYNE D. HOYER, Ph.D.,
called for oral examination by counsel for the
Defendant, pursuant to notice, at the United States
Department of Justice, Antitrust Division, 450 Fifth
Street, Northwest, Suite 11-248, Washington,
D.C. 20001, before Christina S. Hotsko, RPR, CRR, of
Veritext Legal Solutions, a Notary Public in and for
the District of Columbia, beginning at 8:33 a.m.,
when were present on behalf of the respective
parties:

[illegible]

<p style="text-align: right;">Page 14</p> <p>1 Q. Okay. So you did not identify any flaws 2 in Dr. Simonson's study that you did not lay out 3 in your report? 4 A. Yes, that's correct. 5 Q. Okay. Is there anything in the way that 6 Dr. Simonson conducted his survey that you agree 7 with? 8 A. He did some things right, but there are 9 major flaws in the report. 10 Q. What did he do right? 11 A. Well, he attempted -- he asked certain 12 questions that were not leading, but some of the 13 key questions in the report were quite flawed. 14 Q. What questions that he asked -- did he 15 ask that were not leading? 16 A. I don't have it -- I don't remember 17 the -- I don't have it memorized. If you want to 18 go to his survey, I could look at that. 19 Q. It's fair to say that if you didn't 20 identify a critique of a question in your report, 21 you think that the question was phrased 22 appropriately?</p>	<p style="text-align: right;">Page 16</p> <p>1 in the surveys, the three surveys that 2 Dr. Simonson conducted, were inappropriate or too 3 small, right? 4 A. My issue is not with the sample size; 5 it's with the representativeness of the sample. 6 Q. Great. And we'll get into a little bit 7 of that later. 8 But you agree that the respondent sample 9 size numbers are large enough to draw robust 10 conclusions in each of Dr. Simonson's reports, 11 right? 12 A. Well, it's not just about numbers. It's 13 about -- representativeness is a bigger issue. 14 Q. Understand. But just to focus you on my 15 question, you agree that the respondent sample 16 size numbers in each of Dr. Simonson's three 17 surveys were large enough to draw robust 18 conclusions, correct? 19 MR. SHEANIN: Asked and answered. 20 THE WITNESS: Again, I stand by my 21 previous answer. 22</p>
<p style="text-align: right;">Page 15</p> <p>1 A. I would say that. Yes. 2 Q. Okay. Did you take issue with any other 3 aspect of Dr. Simonson's methodology other than 4 the ones that you identified in your report? 5 A. Not that I can remember. The main 6 criticisms are in my report. 7 Q. Okay. So in your report you do not 8 criticize Dr. Simonson's decision to use \$500,000 9 as the cutoff line between the higher and the 10 lower spend surveys, correct? 11 A. Yes. I do not criticize that. 12 Q. You think that was an appropriate line to 13 draw? 14 A. Well, in retrospect, looking at the 15 distribution of the advertising spend, I think the 16 high end could be higher, but I don't think 17 that -- see that as a major flaw. 18 Q. Okay. That dividing line doesn't render 19 Dr. Simonson's report methodologically unreliable 20 in your view? 21 A. That's correct. 22 Q. And you do not think in that sample sizes</p>	<p style="text-align: right;">Page 17</p> <p>1 BY MS. DEARBORN: 2 Q. I actually need an answer to my question, 3 which is, you agree that the respondent sample 4 size numbers in each of Dr. Simonson's three 5 surveys are large number to draw robust 6 conclusions, correct? 7 MR. SHEANIN: Counsel -- 8 BY MS. DEARBORN: 9 Q. Setting aside the representativeness 10 issue. 11 MR. SHEANIN: Asked and answered. 12 THE WITNESS: What was -- 13 MR. SHEANIN: I said asked and answered. 14 BY MS. DEARBORN: 15 Q. You can answer the question. 16 A. The sample size is adequate. 17 Q. Thank you, Dr. Hoyer. 18 And you don't criticize Dr. Simonson's 19 decision to rely on a third party to assemble a 20 panel of respondents, correct? 21 A. Correct. That is done routinely in 22 research.</p>

<p style="text-align: right;">Page 18</p> <p>1 Q. Okay. And you didn't find any 2 quantitative errors in the way that Dr. Simonson 3 tabulated his results, right? 4 A. Not specific tabulation errors, but some 5 in reporting of the results. 6 Q. Okay. And focusing on the agency survey 7 for a moment, you don't question Dr. Simonson's 8 instruction to ask agency respondents to focus on 9 the client on which they spend the most time, 10 right? 11 A. I don't criticize that, no. 12 Q. Okay. And I know -- we'll talk a little 13 bit about some questions you have given the length 14 of the surveys, but as a general matter, you don't 15 think 38 or 39 question is too many to ask 16 respondents in a survey, right? 17 MR. SHEANIN: Objection to form. 18 THE WITNESS: It depends. It's not just 19 the number of questions; it's how detailed those 20 questions are. So -- but it's usually in -- that 21 would be a reasonable size of a survey. 22</p>	<p style="text-align: right;">Page 20</p> <p>1 research. But there are quantitative researchers 2 that start with the data and then develop a 3 hypothesis. 4 Q. Yeah. In this case, did you start with a 5 hypothesis? 6 A. I didn't see a hypothesis. Not that I 7 can recall. 8 Q. You didn't start with a hypothesis and 9 then test your results. 10 A. Normally, when you test a hypothesis, 11 there's a literature review that talks about all 12 the literature and then come up to a formal 13 specific hypothesis. And I did not see that in 14 the report. 15 Q. You didn't see that in Dr. Simonson's 16 report? 17 A. Right. 18 Q. I'm asking, actually, about your process 19 in coming up with -- 20 A. Oh, in my process, I'm sorry. 21 Q. Yeah, with your -- in preparing your 22 report in this case, did you start with a</p>
<p style="text-align: right;">Page 19</p> <p>1 BY MS. DEARBORN: 2 Q. Thank you. 3 And we'll talk a little bit about some of 4 your criticisms of Dr. Simonson's exclusion of 5 people who took too long to take the survey, or 6 not long enough. 7 But as a general matter, you agree that 8 it's appropriate to exclude people who took the 9 survey too quickly and those who took too long, 10 right? 11 A. That is something that's typically done 12 in research, but I don't think he went far enough 13 in this case. 14 Q. Okay. Thank you. And we'll talk a 15 little bit later about your criticisms in that 16 regard. Thank you, Dr. Hoyer. 17 Now, you'd agree that your typical 18 process for preparing an academic study is to 19 identify a hypothesis you want to test and then to 20 design a study, whether it be a study or 21 experiment, to test that hypothesis, right? 22 A. Not in all research. That's the way I do</p>	<p style="text-align: right;">Page 21</p> <p>1 hypothesis and then test that conclusion? 2 A. No, I did not, because that was not my 3 assignment. I was there to simply review and 4 evaluate Professor Simonson's report, and that's 5 not a research study where I'm collecting data to 6 test that hypothesis. 7 Q. Okay. Thank you. 8 You did not conduct a survey in this 9 case, right? 10 A. Correct. I did not. 11 Q. Why not? 12 A. That was not part of my assignment. And 13 a survey typically takes four to six weeks at 14 least to conduct, and I had three weeks to produce 15 this report. 16 Q. So you didn't have enough time to 17 complete a survey of your own? 18 A. Well, even if I had enough time, I 19 wouldn't have done it. That was not my 20 assignment. 21 Q. Okay. Did anyone tell you not to conduct 22 a survey in this case?</p>

<p style="text-align: right;">Page 22</p> <p>1 A. No.</p> <p>2 Q. All right.</p> <p>3 MR. SHEANIN: Counsel -- on that last</p> <p>4 question, I just want to caution you not to get</p> <p>5 into contents of communication between yourself</p> <p>6 and counsel or yourself and your staff.</p> <p>7 MS. DEARBORN: That's completely fine.</p> <p>8 BY MS. DEARBORN:</p> <p>9 Q. I want to be clear, in all of my</p> <p>10 questions here today, I'm not attempting to get</p> <p>11 into the substance of conversations between</p> <p>12 yourself and counsel for the Department of</p> <p>13 Justice.</p> <p>14 A. Okay.</p> <p>15 Q. You can set that aside in your answers.</p> <p>16 A. Okay.</p> <p>17 Q. I do, however, want to understand the</p> <p>18 scope of your assignment. And I think that's an</p> <p>19 appropriate line of questions to ask, subject to</p> <p>20 your counsel's objections.</p> <p>21 So just to be clear, you did not try to</p> <p>22 conduct a survey or an experiment that corrected</p>	<p style="text-align: right;">Page 24</p> <p>1 MR. SHEANIN: Objection to form.</p> <p>2 THE WITNESS: I did not collect any data,</p> <p>3 but I re-analyzed some of Simonson's data to</p> <p>4 support some of my conclusions.</p> <p>5 BY MS. DEARBORN:</p> <p>6 Q. And that's -- the data you're identifying</p> <p>7 is the data that Dr. Simonson provided in the</p> <p>8 backup to his report?</p> <p>9 A. Yes. That's correct.</p> <p>10 Q. Okay. Other than what is identified in</p> <p>11 your report, did you do anything else to</p> <p>12 empirically test your conclusions about whether</p> <p>13 the errors in Dr. Simonson's report would impact</p> <p>14 the results?</p> <p>15 A. No, I did not.</p> <p>16 Q. And I think I asked a bad question, so</p> <p>17 let me ask it again.</p> <p>18 Other than what is identified in your</p> <p>19 report, did you do anything to empirically test</p> <p>20 whether Dr. Simonson's -- the errors that you</p> <p>21 identified in Dr. Simonson's report would impact</p> <p>22 his results?</p>
<p style="text-align: right;">Page 23</p> <p>1 any of the errors that you identified in</p> <p>2 Dr. Simonson's report, correct?</p> <p>3 A. I did not conduct a survey.</p> <p>4 Q. Okay. So for example, you didn't conduct</p> <p>5 a survey that asked whether -- strike that.</p> <p>6 In preparing your opinions in this case,</p> <p>7 did you do anything to empirically test how the</p> <p>8 errors you identified, if corrected, would impact</p> <p>9 the results that he reached?</p> <p>10 MR. SHEANIN: Objection to form.</p> <p>11 THE WITNESS: Could you clarify about</p> <p>12 what you mean empirically test?</p> <p>13 BY MS. DEARBORN:</p> <p>14 Q. Well, what does the word "empirically"</p> <p>15 mean to you?</p> <p>16 A. It means collect data.</p> <p>17 Q. So using that definition, in preparing</p> <p>18 your opinions in this case, did you do anything to</p> <p>19 empirically test how the errors that you</p> <p>20 identified in Dr. Simonson's report, if they were</p> <p>21 corrected, would impact the results that he</p> <p>22 reached?</p>	<p style="text-align: right;">Page 25</p> <p>1 MR. SHEANIN: Objection to form.</p> <p>2 THE WITNESS: No, I did not collect any</p> <p>3 additional data.</p> <p>4 BY MS. DEARBORN:</p> <p>5 Q. Okay. This might be implicit in your</p> <p>6 prior answers, but let me just ask anyway.</p> <p>7 In preparing to -- your report in this</p> <p>8 case, did you talk to any advertisers?</p> <p>9 A. No, I did not.</p> <p>10 Q. Did you gather any information from</p> <p>11 advertisers or advertising agencies?</p> <p>12 A. No, I did not.</p> <p>13 Q. Is it fair to say that you restricted</p> <p>14 your analysis to the data that Dr. Simonson</p> <p>15 collected?</p> <p>16 A. I -- well, what he collected, yes.</p> <p>17 Q. Okay. Do you have any experience</p> <p>18 purchasing digital advertising?</p> <p>19 A. No. My expertise is in survey</p> <p>20 methodology and consumer behavior.</p> <p>21 Q. Okay. Do you have any experience using</p> <p>22 ad tech tools?</p>

<p style="text-align: right;">Page 26</p> <p>1 A. I do not. Again, my expertise is in 2 survey methodology and consumer behavior. And 3 marketing communications. 4 Q. Have you ever conducted a survey of 5 advertisers before? 6 A. Of advertising? 7 Q. Uh-huh. Advertisers. 8 A. Advertisers? As -- do you mean them as 9 the sample? 10 Q. Yes. 11 A. No, I have not. 12 Q. Okay. Would you agree that vendor or 13 advertiser decisionmaking processes might be 14 different from consumer decisionmaking processes? 15 MR. SHEANIN: Objection to form. 16 THE WITNESS: My assignment was not to 17 evaluate the decision process. It was to evaluate 18 questions asked of advertisers. And questions, 19 survey methodology, the -- the basic principles 20 are the same across any target -- 21 BY MS. DEARBORN: 22 Q. Okay.</p>	<p style="text-align: right;">Page 28</p> <p>1 be of consumers? 2 A. I would have to -- I don't have my -- 3 I've done hundreds of studies. I don't have 4 every -- the large majority. 5 Q. Large majority would be of consumers? 6 A. Yes. 7 Q. Okay. And is it fair to say that, in the 8 litigation context, your surveys are usually in 9 the subject of likelihood of confusion in 10 trademark cases? 11 A. Not always. One of my surveys was on 12 deceptive advertising. 13 Q. Okay. But all of your surveys have 14 been -- have pertained to whether -- strike that. 15 All of your surveys have pertained to -- 16 have surveyed the population of consumers, right? 17 MR. SHEANIN: Objection to form. 18 THE WITNESS: That is correct. 19 BY MS. DEARBORN: 20 Q. You're not an expert in advertiser 21 decisionmaking, right? 22 A. Can you define that term?</p>
<p style="text-align: right;">Page 27</p> <p>1 A. -- audience. 2 Q. How many surveys have you prepared for 3 litigation purposes? 4 A. Three. Actually, I've done a fourth one, 5 but that's currently ongoing, and my report was 6 just submitted and I can't talk about that. 7 Q. Can you describe at a high level what the 8 subject matter of that survey is? 9 MR. SHEANIN: I'm going to caution you 10 that if it's something that's confidential, you 11 should not disclose anything that would violate 12 any kind of confidentiality. 13 THE WITNESS: I can only tell you the 14 topic. It's on understanding -- for credit 15 union -- customers understanding credit union 16 terms for their account. 17 BY MS. DEARBORN: 18 Q. Okay. And how many surveys have you 19 conducted outside of the litigation context? 20 A. Hundreds. 21 Q. Okay. Of all the surveys that you've 22 conducted, what percentage, approximately, would</p>	<p style="text-align: right;">Page 29</p> <p>1 Q. Well, you know what the phrase "consumer 2 decisionmaking" means, right? 3 A. Yes. 4 Q. And you would agree that advertisers 5 might use different processes to come to decisions 6 or take different things into consideration when 7 making decisions than consumers, right? 8 MR. SHEANIN: Objection to form. 9 THE WITNESS: I do, in my class, talk 10 about decisions that advertisers need to make in 11 their advertising strategy. 12 BY MS. DEARBORN: 13 Q. Okay. So would you characterize yourself 14 as an expert in advertiser decisionmaking? 15 A. I would classify myself as an expert in 16 advertising and marketing communications. 17 Q. Okay. How -- would you classify yourself 18 as an expert in advertiser decisionmaking? 19 MR. SHEANIN: Asked and answered. 20 THE WITNESS: Again, as I said, I talk 21 about factors that go into advertiser 22 decisionmaking. I've not done research</p>

<p style="text-align: right;">Page 30</p> <p>1 specifically on how they make decisions.</p> <p>2 BY MS. DEARBORN:</p> <p>3 Q. Okay. You have not specifically</p> <p>4 researched how advertisers come to decisions in</p> <p>5 the course of their business, right?</p> <p>6 A. Yes --</p> <p>7 MR. SHEANIN: Asked and answered.</p> <p>8 THE WITNESS: I have general knowledge</p> <p>9 about advertising decisionmaking.</p> <p>10 BY MS. DEARBORN:</p> <p>11 Q. But you have not specifically studied how</p> <p>12 advertisers come to decisions, correct?</p> <p>13 A. Right --</p> <p>14 MR. SHEANIN: Asked and answered.</p> <p>15 THE WITNESS: Sorry. Yes.</p> <p>16 BY MS. DEARBORN:</p> <p>17 Q. In this case, would it have been possible</p> <p>18 for you to conduct what you view as a</p> <p>19 methodologically appropriate survey?</p> <p>20 MR. SHEANIN: Objection to form.</p> <p>21 THE WITNESS: Again, that was not part of</p> <p>22 my assignment.</p>	<p style="text-align: right;">Page 32</p> <p>1 Q. Do you agree that he's an expert in</p> <p>2 behavioral economics?</p> <p>3 A. I would say he is an expert. I am not in</p> <p>4 the area of behavioral economics, but I would</p> <p>5 assume that he is an expert in behavioral</p> <p>6 economics.</p> <p>7 Q. Okay. And you agree that Dr. Simonson is</p> <p>8 qualified to prepare surveys, right?</p> <p>9 A. Yes. He would be.</p> <p>10 Q. And he's also qualified to interpret</p> <p>11 their results?</p> <p>12 A. Yes, he is.</p> <p>13 Q. So you're not critiquing him for straying</p> <p>14 beyond the bounds of his expertise, right?</p> <p>15 MR. SHEANIN: Objection to form.</p> <p>16 THE WITNESS: No, I'm not criticizing him</p> <p>17 on those grounds.</p> <p>18 BY MS. DEARBORN:</p> <p>19 Q. Okay. And you agree that he's qualified</p> <p>20 to prepare the report that he submitted in this</p> <p>21 case?</p> <p>22 A. He's qualified, but he did make flaws.</p>
<p style="text-align: right;">Page 31</p> <p>1 BY MS. DEARBORN:</p> <p>2 Q. Okay. But would it have been possible</p> <p>3 for you to do?</p> <p>4 MR. SHEANIN: Same objection.</p> <p>5 THE WITNESS: Again, that was not part of</p> <p>6 my assignment.</p> <p>7 BY MS. DEARBORN:</p> <p>8 Q. That's not my question.</p> <p>9 Would it have been possible for you to</p> <p>10 conduct a methodologically appropriate survey in</p> <p>11 this case?</p> <p>12 MR. SHEANIN: Objection to form.</p> <p>13 THE WITNESS: Theoretically, yes, but</p> <p>14 actually, operationally, no, in the time</p> <p>15 constraint.</p> <p>16 BY MS. DEARBORN:</p> <p>17 Q. Okay. Do you know Dr. Itamar Simonson?</p> <p>18 A. I do.</p> <p>19 Q. Do you agree that he's an expert in</p> <p>20 marketing?</p> <p>21 A. Yes. He's a well-known expert in</p> <p>22 marketing.</p>	<p style="text-align: right;">Page 33</p> <p>1 There are flaws in his report.</p> <p>2 Q. Okay. You may disagree with his</p> <p>3 conclusions or the way that he conducted his</p> <p>4 report --</p> <p>5 A. Right.</p> <p>6 Q. -- but you don't think he is unqualified</p> <p>7 to offer these opinions, right?</p> <p>8 A. No.</p> <p>9 MR. SHEANIN: Objection to form.</p> <p>10 BY MS. DEARBORN:</p> <p>11 Q. All right. Have you ever worked together</p> <p>12 with Dr. Simonson?</p> <p>13 A. I have not worked on research with him,</p> <p>14 but we were on a trip together in China.</p> <p>15 Q. When was that?</p> <p>16 A. 2002.</p> <p>17 Q. Have you co-authored any papers with</p> <p>18 Dr. Simonson?</p> <p>19 A. No, I have not.</p> <p>20 Q. Have you ever evaluated Dr. Simonson's</p> <p>21 work before?</p> <p>22 MR. SHEANIN: Objection to form.</p>

<p style="text-align: right;">Page 34</p> <p>1 THE WITNESS: I have read his work. But</p> <p>2 in my extensive reviewing -- well, the review</p> <p>3 process is blind, so I can't tell you whether I</p> <p>4 have or not. It's possible, but I don't know.</p> <p>5 BY MS. DEARBORN:</p> <p>6 Q. Fair. So to your knowledge, you haven't</p> <p>7 reviewed Dr. Simonson's work before?</p> <p>8 MR. SHEANIN: Objection to form.</p> <p>9 THE WITNESS: Yes. To my knowledge, I</p> <p>10 have not.</p> <p>11 BY MS. DEARBORN:</p> <p>12 Q. Okay. What is your assessment of</p> <p>13 Dr. Simonson's research record, as a general</p> <p>14 matter?</p> <p>15 A. He's a well-respected researcher.</p> <p>16 Q. How, if at all, do your areas of</p> <p>17 expertise differ from those of Dr. Simonson?</p> <p>18 A. The biggest one is I'm a psychologist,</p> <p>19 and he's a behavioral economist. And I actually</p> <p>20 have a gripe against behavioral economists.</p> <p>21 Things they're saying now, we were saying 30 years</p> <p>22 ago, and they've just discovered it and acting</p>	<p style="text-align: right;">Page 36</p> <p>1 psychologist, so I'm interested in how people</p> <p>2 think and process information. So advertising</p> <p>3 information processing would be when a consumer --</p> <p>4 and actually, it's broader, any kind of marketing</p> <p>5 communication, when they see some kind of</p> <p>6 communication, how do they process it in their</p> <p>7 mind and does it affect their behavior?</p> <p>8 Q. You've said a couple of times that you're</p> <p>9 a consumer psychologist.</p> <p>10 What does that mean?</p> <p>11 A. My Ph.D. is in psychology. So I studied</p> <p>12 under one of the most famous consumer</p> <p>13 psychologists, Jacob Jacoby. It was at Purdue</p> <p>14 University, where I worked under him in my Ph.D.</p> <p>15 But I have a degree, Ph.D., in</p> <p>16 psychology.</p> <p>17 Q. Okay. Are you an expert in the ad tech</p> <p>18 industry?</p> <p>19 A. No, I'm not.</p> <p>20 Q. Have you ever conducted a survey</p> <p>21 involving ad tech in any way before?</p> <p>22 A. No, I have not.</p>
<p style="text-align: right;">Page 35</p> <p>1 like it's a new discovery. And we were saying</p> <p>2 that -- I've done work in the '80s that people are</p> <p>3 now doing the same thing and saying, wow, this is</p> <p>4 new. And that's not true.</p> <p>5 Q. So your gripe against behavioral</p> <p>6 economists is not that they are somehow wrong;</p> <p>7 it's that they're doing something that you have</p> <p>8 been doing for a long time?</p> <p>9 A. Yeah. For example, the book by Daniel</p> <p>10 Kahneman, Think Fast --</p> <p>11 Q. Thinking, Fast and Slow?</p> <p>12 A. I was talking about those things in early</p> <p>13 1980s.</p> <p>14 Q. Got it. In paragraph 1 of your report,</p> <p>15 you indicate that your research areas including</p> <p>16 branding, including brand personality and brand</p> <p>17 sabotage, advertising information processing, and</p> <p>18 cause-related marketing, right?</p> <p>19 A. Yes.</p> <p>20 Q. What is advertising information</p> <p>21 processing?</p> <p>22 A. That is -- again, I'm a consumer</p>	<p style="text-align: right;">Page 37</p> <p>1 Q. And when I -- I should have clarified.</p> <p>2 Do you understand what the term "ad tech"</p> <p>3 means?</p> <p>4 A. I do.</p> <p>5 Q. What is your understanding of that term?</p> <p>6 A. Ad tech is the different tools to buy</p> <p>7 advertising for display -- programmatic display</p> <p>8 advertising.</p> <p>9 Q. Okay. And again, you've never conducted</p> <p>10 a survey of advertisers before, right?</p> <p>11 MR. SHEANIN: Asked and answered.</p> <p>12 THE WITNESS: That is correct.</p> <p>13 BY MS. DEARBORN:</p> <p>14 Q. Outside of your work on this case, had</p> <p>15 you ever heard of Advertiser Perceptions before?</p> <p>16 A. You mean the firm?</p> <p>17 Q. Yes.</p> <p>18 A. No.</p> <p>19 Q. So the first time you heard of Advertiser</p> <p>20 Perceptions was in connection with this</p> <p>21 litigation?</p> <p>22 A. That's correct.</p>

<p style="text-align: right;">Page 38</p> <p>1 Q. Okay. And I believe earlier, when we 2 spoke about the use of a panel or rely -- or a 3 third-party company to assemble a panel of 4 respondents, you said that that's common in the 5 industry? 6 A. Yes, it is. 7 Q. So have you relied on companies to 8 assemble a panel of respondents for you in surveys 9 that you've conducted in the past? 10 A. Yes, I have. 11 Q. How often have you done that? 12 A. Well, on every survey I did. 13 Q. Very common, then. 14 A. Yes. 15 Q. When you have used a third-party company 16 to assemble a panel of respondents, what, if 17 anything, have you done to verify how they select 18 their panel? 19 A. Well, I ask them about the details, and 20 then I carefully look at what samples have 21 resulted from those. 22 Q. How do you confirm that the panel was</p>	<p style="text-align: right;">Page 40</p> <p>1 Q. So you compared the percentage of owners 2 of the vehicles to the total population and -- 3 A. No. It was in the population of people 4 that bought the GM vehicles. So there were 5 different models. Okay? And in the population, 6 there were X percent that owned one type of 7 vehicle, X percent owned another type of vehicle, 8 and those same percentages were in the panel. 9 Q. Got it. So you confirmed that the panel 10 that you had assembled had approximately the same 11 distribution of vehicle ownership -- 12 A. Correct. 13 Q. -- as the general population? 14 A. Yes, that's correct. 15 Q. Is there anything else that you did to 16 verify the representativeness of the panel that 17 you used in that example? 18 A. I carefully evaluated the sample, but 19 it's been a while so I don't remember the details. 20 Q. And is that your general practice, to 21 essentially compare the percentage of the -- 22 strike that.</p>
<p style="text-align: right;">Page 39</p> <p>1 representative of the population that you're 2 seeking to study? 3 A. Well, typically, for example, in my 4 surveys, one of my surveys -- it was for General 5 Motors, and the panel -- or the respondents had to 6 be owners of a particular set of vehicles during a 7 time frame. 8 And so I carefully cross-checked that 9 data against the -- what the percentage was in the 10 population versus what the percentage was in my 11 panel. 12 Q. And in that example, you're 13 cross-checking the percentage of your panel that 14 were owners of a particular set of vehicles 15 against the general population? 16 A. Well, not the general population. The 17 subject of the survey was owners of those vehicles 18 during a very specific period. 19 Q. Okay. 20 A. And so I had data on how many there were 21 of those of the total population and then how many 22 were in the sample.</p>	<p style="text-align: right;">Page 41</p> <p>1 Is that your -- was the example -- was 2 the process that you used in that example your 3 general practice in terms of verifying the 4 representativeness of a panel? 5 A. Yes. So for example, another survey I 6 just did, the sample population were in different 7 states -- 95 percent were in Alabama, 2 percent 8 were in Texas, and some percent in Florida -- and 9 I got a panel and I carefully evaluated that there 10 were the same percentages of respondents in the 11 sample as in those states. 12 Q. Okay. Other than verifying that the 13 population that you are sampling has approximately 14 the same percentage of a key attribute as the 15 general population, is there anything else that 16 you do, typically, to evaluate a panel for a 17 survey that you're conducting? 18 A. Well -- 19 MR. SHEANIN: Objection to form. 20 THE WITNESS: My example is to give -- 21 usually, it's multiple things; it's not just one 22 thing. So it would be you want the right</p>

<p style="text-align: right;">Page 42</p> <p>1 proportion of men to women, the right proportion 2 of -- it depends on the survey. But in my one 3 survey I was just talking about, they had to be 4 customers of a credit union. So if they were not 5 customers of a credit union, then they were not 6 included in the sample. 7 So we had to make sure -- we give the 8 panel -- the person who runs the panel and their 9 company specific criteria that they have to meet 10 for the sample. 11 BY MS. DEARBORN: 12 Q. Right. And I'm trying to get at your 13 typical practice for -- 14 A. Right. That's the typical practice. 15 Q. Okay. Let me just -- I'll finish my 16 question and you can finish your answer. 17 So is your typical practice to give the 18 company that you're using to assemble a panel 19 criteria that they have to meet for the sample in 20 terms of percentage of distribution of what you're 21 trying to study? 22 MR. SHEANIN: Objection to form.</p>	<p style="text-align: right;">Page 44</p> <p>1 representative of the target population to which 2 I'm trying to draw conclusions. 3 Q. And I'm trying to get at your process for 4 determining representativeness. 5 A. Right. 6 Q. So your -- when you attempt to ensure 7 that your survey population is representative and 8 you are relying on a third party, another company, 9 to do that for you, we've talked about checking to 10 ensure that the percentages of the target 11 population that you're sampling are approximately 12 the same on a key attribute that you're attempting 13 to measure. 14 Is there anything else that you do to 15 ensure that the survey population that you have 16 created or that the company has created is 17 representative? 18 MR. SHEANIN: Objection to form. 19 THE WITNESS: The process is simply to 20 make sure, on all the key criteria, to qualify 21 them. And it can be demographics, but it can also 22 be, as I said, user of the product or whatever.</p>
<p style="text-align: right;">Page 43</p> <p>1 THE WITNESS: Yes, except they don't 2 assemble a panel. They have a panel. 3 BY MS. DEARBORN: 4 Q. Okay. 5 A. So they might have 130,000 people in that 6 panel, and you want to systematically select those 7 that meet your target from that panel. 8 Q. Okay. Is there anything else you do to 9 verify the representativeness of a panel that you 10 are assembling for a survey? 11 A. Well, the process is very thorough, to 12 make sure that they match the target population. 13 Q. The process is very thorough for the 14 company that you're relying on to assemble the 15 panel? 16 A. For them and for me. 17 Q. You say for them and for you. 18 What do you mean? 19 A. If I'm doing a litigation survey, one of 20 the most important aspects is to have a 21 representative sample. And so I'm very cautious 22 and very thorough in making sure that my sample is</p>	<p style="text-align: right;">Page 45</p> <p>1 We're very thorough to make sure we -- "we," I 2 mean the panel company with myself working with 3 them -- to make sure that that sample is 4 representative. 5 BY MS. DEARBORN: 6 Q. Okay. I'd like to turn your attention to 7 paragraph 64 of your report. 8 In this paragraph you use the acronym AP. 9 That stands for Advertiser Perceptions, 10 right? 11 A. Yes. 12 Q. Did you do anything yourself to test the 13 quality of Advertiser Perceptions' panels? 14 A. Could you clarify what you mean by that? 15 Q. Sure. So you understand that 16 Advertiser Perceptions has something calls the 17 AdPROs panel? 18 A. Yes. 19 Q. What do you understand the AdPROs panel 20 to consist of? 21 A. Well, my understanding is it's a 22 specialized company that has advertising</p>

<p style="text-align: right;">Page 46</p> <p>1 respondents for a situation like this, when you 2 want to survey advertisers. 3 Q. Okay. Did you do anything yourself to 4 test the quality of the Advertiser Perceptions 5 AdPROs panel? 6 A. I didn't have the -- I did not do 7 anything specifically, but there wasn't data in 8 the report for me -- to allow me to do that. 9 Q. But you didn't talk to anyone in 10 Advertiser Perceptions, for example? 11 A. No, I did not. 12 Q. Did you do any research into 13 Advertiser Perceptions apart from what is in 14 Dr. Simonson's report? 15 A. No, I did not. 16 Q. Okay. Did you do any investigation 17 yourself to ascertain the quality of 18 Advertiser Perceptions' methodology for assembling 19 a panel? 20 A. No, because it wasn't germane to my 21 opinion. My opinion was more on the result of 22 what they did than what was in the report.</p>	<p style="text-align: right;">Page 48</p> <p>1 criticism of Ad Perceptions, and that's not 2 central to my opinions. 3 My opinions are more based on what the 4 sample was, not the process that they went 5 through. 6 Q. Okay. So your opinion -- it's not your 7 opinion that Advertiser Perceptions is an 8 unreliable company. 9 A. No. 10 Q. And it's not your opinion that 11 Advertiser Perceptions has any methodological 12 problem in assembling the panel of respondents -- 13 MR. SHEANIN: Objection to form. 14 BY MS. DEARBORN: 15 Q. -- for -- 16 A. That's correct. I'm not criticizing 17 Ad Perceptions. 18 Q. Okay. Are you aware that Google has 19 relied on Advertiser Perceptions for other 20 surveys? 21 A. In that memo they talk about that they've 22 used them. Yes.</p>
<p style="text-align: right;">Page 47</p> <p>1 Q. Okay. Do you have any reason to question 2 the quality of Advertiser Perceptions' AdPROs 3 panel? 4 A. Well, there is a cite in my report. If 5 you look at 105 footnote on that page. 6 Q. Yeah. That's one internal Google 7 document? 8 A. Yes. 9 Q. Who gave you that document? The 10 answer -- question is who? 11 MR. SHEANIN: That's fine. 12 THE WITNESS: It was provided to me by 13 Brattle. And I don't know where they got it. 14 BY MS. DEARBORN: 15 Q. Did you investigate whether anyone at 16 Google had said positive things about 17 Advertiser Perceptions? 18 A. I did not. 19 Q. Did you ask for documents in which Google 20 said positive things about Advertiser Perceptions? 21 A. My major -- I was not having a major -- 22 the point of that what not to make a major</p>	<p style="text-align: right;">Page 49</p> <p>1 Q. Okay. And did you see the citation to 2 other Advertiser Perceptions surveys in 3 Dr. Simonson's report? 4 A. I'm sure I did, but I don't recall. 5 Q. Okay. Did you review the other surveys 6 that Advertiser Perceptions has done in 7 preparation of your report? 8 MR. SHEANIN: Objection to form. 9 THE WITNESS: No. As I said, that's not 10 a critical part of my opinion, anything about 11 Ad Perceptions. 12 BY MS. DEARBORN: 13 Q. Okay. So you don't think it was 14 inappropriate for Dr. Simonson to rely on 15 Advertiser Perceptions in this case? 16 A. No, I do not. 17 Q. Okay. Let's go to section III.E in your 18 report, please, which begins on page 62. 19 In paragraph 105, you have a sentence -- 20 you begin that paragraph with the phrase "I 21 understand." 22 Do you see that?</p>

<p style="text-align: right;">Page 254</p> <p>1 Q. So that would have been methodologically 2 appropriate but not informing survey respondents 3 and giving them the opportunity to opt out? 4 A. I would ask that question before. It's a 5 different issue. First of all, you want to know 6 are they aware of it. And then you want -- if 7 they are aware who it was, and they get that 8 correct, then you exclude them. Then you ask 9 and -- reveal the sponsor of the survey and see if 10 they have a problem with it. That's -- so it's a 11 different issue. 12 Q. I'm sorry. I just want to understand 13 your testimony. 14 You said, first of all, you want to know 15 if they're aware of it. And then, if they are 16 aware, who it was. And if they get that correct, 17 then you exclude them. Then you ask and reveal 18 the sponsor of the survey and see if they have a 19 problem with it. 20 Are you saying that, at the end of the 21 survey, Dr. Simonson should have first asked 22 respondents to guess the sponsor of the survey and</p>	<p style="text-align: right;">Page 256</p> <p>1 to exclude their answers, correct? 2 A. Yes. Correct. 3 Q. And what you take issue with is 4 Dr. Simonson's choice to tell respondents the 5 sponsor of the survey and its purpose and then 6 allow themselves to opt out, right? 7 A. I don't take issue with him telling the 8 sponsor of the survey. My concern is that it 9 eliminates a substantial number of people, and its 10 systematic exclusion, and that questions the 11 reliability of the sample. 12 Q. So you think fewer people would opt out 13 if asked to guess about the sponsor of the survey 14 and its purpose than would opt out if told? 15 MR. SHEANIN: Objection. Form. 16 THE WITNESS: Again, they're separate 17 issues. I'm wanting to know on their own if they 18 answered this. And it could happen to anybody in 19 the sample. They could be -- people read the 20 New York Times, they read the news, could be 21 aware, even in the sample as it stands right now. 22 And you just -- I think you need to assess are</p>
<p style="text-align: right;">Page 255</p> <p>1 then they would be told the sponsor of the survey? 2 A. I'm saying they're separate issues. 3 Q. I see. 4 A. I'm saying standard practice in survey 5 research is to ask the -- what do you think the 6 purpose of the survey was? Or you could ask two 7 questions, who do you -- a lot of times in 8 academic research, there is no sponsor, so you 9 ask, what was the purpose of the survey? But if 10 there is a sponsor, then you ask specifically, who 11 was the sponsor of the survey? And then if they 12 say, it was Google for their antitrust litigation, 13 you eliminate their responses. 14 That's independent of the issue do you 15 reveal -- you could do that and not ever reveal 16 the sponsor. 17 Q. I see. So I think I understand your 18 testimony. 19 In your view, it would have been 20 appropriate for Dr. Simonson to ask respondents 21 who they thought the sponsor of the survey was and 22 its purpose, and if they answered correctly, then</p>	<p style="text-align: right;">Page 257</p> <p>1 people aware of the issues -- who is sponsoring 2 this survey, and if they are, that could bias 3 their responses, so you would want to exclude 4 them. 5 That's totally separate from the issue 6 of, for whatever reason, tell them who the sponsor 7 is and decide if they want to opt out of having 8 their responses included. 9 BY MS. DEARBORN: 10 Q. You're aware that survey respondents were 11 only told of the survey sponsor and purpose at the 12 very end of the survey, right? 13 A. That's correct. 14 Q. After they had already answered all the 15 questions? 16 A. That's correct. 17 Q. And that the back button on their browser 18 was disabled such that no answers could be changed 19 after the respondents learned the sponsor of the 20 survey and its purpose? 21 A. Yes. 22 Q. How would learning the survey sponsor</p>

<p style="text-align: right;">Page 258</p> <p>1 after completing all of the survey responses 2 change the results that respondents gave 3 beforehand? 4 A. I'm not saying that at all. I don't take 5 issue with them revealing sponsor at the end, and 6 it does not change their responses. It alters the 7 nature of the sample because a significant number 8 of people opted out. 9 So it has nothing to do with the 10 reliability of their responses prior to that. 11 It's simply what happened as a result of that, 12 that revealing. 13 Q. Would you agree that a survey is blind if 14 survey respondents are unaware of the sponsor 15 while they're answering questions? 16 A. Yes. 17 Q. So in that way, Dr. Simonson's survey was 18 blind, right? 19 MR. SHEANIN: Objection. Form. 20 THE WITNESS: It was blind in design. 21 Yes. 22</p>	<p style="text-align: right;">Page 260</p> <p>1 aware of research that has found that there is no 2 effect of disclosure of a survey sponsor on the 3 results of a survey? 4 MR. SHEANIN: Objection. Form. 5 THE WITNESS: I can't cite any specific 6 articles, but that's contextual. It depends how 7 charged the questions are. There clearly was an 8 issue here because such a substantial -- a large 9 number of people opted out, that they were very 10 concerned that Google was the sponsor or they 11 wouldn't have opted out of the survey. After 12 going through all that, answering 39 questions and 13 then deciding to have them excluded, there was a 14 clear concern from those respondents. 15 BY MS. DEARBORN: 16 Q. Have you conducted any experiments to 17 determine the effect of disclosure of sponsorship 18 on survey responses? 19 A. I have not. 20 Q. Have you conducted any experiments to 21 determine the effects of disclosure of a survey's 22 purpose on respondents to a survey?</p>
<p style="text-align: right;">Page 259</p> <p>1 BY MS. DEARBORN: 2 Q. Do you have any reason to believe that 3 survey respondents were aware of the survey 4 sponsor as they answered questions? 5 MR. SHEANIN: Objection. Form. 6 THE WITNESS: I have no data on that. 7 It's possible, but there's no data -- if he had 8 asked that question at the end, we could know. 9 BY MS. DEARBORN: 10 Q. Are you aware that there is some research 11 that has found that identifying the survey 12 sponsor, even while respondents are answering 13 questions, has no meaningful effect on survey 14 responses? 15 A. That's -- there could be isolated 16 incidences, but based -- you know, particularly 17 Diamond cites this. There can be an instance 18 where you might reveal it, but the general 19 practice -- the most important practice is to have 20 a double blind survey. 21 Q. Despite the fact that it might be 22 standard practice to have a blind survey, are you</p>	<p style="text-align: right;">Page 261</p> <p>1 A. Generally -- I have not, but that's not a 2 topic I've seen anybody -- that's not something we 3 do. It's standard practice we do not reveal the 4 sponsor or the purpose of the survey. 5 Q. Do you have any reason to believe that 6 the individuals who opted out of having their 7 survey responses included in the final results 8 would have answered Dr. Simonson's questions 9 differently from the eventual survey respondents? 10 MR. SHEANIN: Objection. Form. 11 THE WITNESS: Well, as I say in my 12 report, it's not systematic -- I mean, it is 13 systematic exclusion if it was random, just people 14 randomly. 15 But specifically, my hypothesis is -- and 16 I don't have data to support, other than the 17 incidence of opting out was 50 percent higher in 18 the high spend advertising survey. And that 19 indicates that there's some concern about perhaps 20 Google getting their answers or knowing what they 21 answered. And particularly if they're heavy users 22 of Google ad tools, concerning about some --</p>

<p style="text-align: right;">Page 262</p> <p>1 what -- that effect Google -- you know, would</p> <p>2 Google come after them, whatever.</p> <p>3 I don't have hard-core evidence, but</p> <p>4 based on those different percentages, that seems</p> <p>5 to be consistent with that view.</p> <p>6 BY MS. DEARBORN:</p> <p>7 Q. Okay. You don't have hard -- you said</p> <p>8 you don't have hard-core evidence.</p> <p>9 A. I don't have actual data on those</p> <p>10 respondents.</p> <p>11 Q. Okay. You don't have data that would</p> <p>12 suggest that people who answered -- strike that.</p> <p>13 You don't have data that would suggest</p> <p>14 that people who opted out of having their survey</p> <p>15 responses included in the final results would have</p> <p>16 answered differently --</p> <p>17 A. Yeah.</p> <p>18 Q. -- from the eventual survey population,</p> <p>19 right?</p> <p>20 MR. SHEANIN: Objection. Form.</p> <p>21 THE WITNESS: Yeah, I do not because</p> <p>22 Simonson does not provide -- I assume he destroyed</p>	<p style="text-align: right;">Page 264</p> <p>1 A. Yes.</p> <p>2 Q. Okay. Now, in one of your prior answers,</p> <p>3 you said that survey respondents might be</p> <p>4 concerned that Google would come after them for</p> <p>5 their responses, right?</p> <p>6 A. I may not have used those exact words,</p> <p>7 but something to that effect.</p> <p>8 Q. Okay. You're aware that the survey</p> <p>9 respondents' identities were kept confidential,</p> <p>10 right?</p> <p>11 A. Yes.</p> <p>12 Q. So what's your basis for thinking that</p> <p>13 Google could retaliate against survey respondents</p> <p>14 in the way that you suggest?</p> <p>15 A. I'm not saying Google would. And you're</p> <p>16 right, they don't know who -- but why were they</p> <p>17 concerned? You have a group -- the hard-core</p> <p>18 evidence is you have a significant percentage of</p> <p>19 people who, when they found out Google was the</p> <p>20 sponsor and it related to the antitrust</p> <p>21 litigation, they wanted out, even after taking the</p> <p>22 time to fill out the questionnaire.</p>
<p style="text-align: right;">Page 263</p> <p>1 that data and does not have that data, because</p> <p>2 they asked to have it excluded.</p> <p>3 BY MS. DEARBORN:</p> <p>4 Q. You say you assume that he destroyed that</p> <p>5 data.</p> <p>6 Do you know one way or the other?</p> <p>7 A. I don't, but he should have.</p> <p>8 Q. Okay. Once survey respondents opted out</p> <p>9 of having their survey responses included in the</p> <p>10 final results, it was appropriate for Dr. Simonson</p> <p>11 not to look at those responses any further, right?</p> <p>12 A. Absolutely.</p> <p>13 Q. And it was appropriate for him not to</p> <p>14 include them in his final report, right?</p> <p>15 A. Absolutely.</p> <p>16 Q. Because doing otherwise would have broken</p> <p>17 a promise.</p> <p>18 A. Absolutely.</p> <p>19 Q. Okay. Now, you said that the number of</p> <p>20 individuals who opted out in the higher spend</p> <p>21 survey was higher than in the lower spend survey.</p> <p>22 Is that the case?</p>	<p style="text-align: right;">Page 265</p> <p>1 There has to be a reason. It's not</p> <p>2 random.</p> <p>3 Q. You say there has to be a reason. But</p> <p>4 you didn't test it, because you couldn't, right?</p> <p>5 A. Right. I couldn't.</p> <p>6 Q. Right.</p> <p>7 A. There's no data. There's no open-ended</p> <p>8 responses, why did you opt out?</p> <p>9 Q. But you didn't, for example, conduct a</p> <p>10 survey where you did not give survey respondents</p> <p>11 the ability to opt out and see whether the results</p> <p>12 would be any different.</p> <p>13 MR. SHEANIN: Objection. Form.</p> <p>14 THE WITNESS: No. As I said, I've not</p> <p>15 done any other surveys.</p> <p>16 BY MS. DEARBORN:</p> <p>17 Q. Okay. How would a respondent to these</p> <p>18 surveys know whether the answers were good for</p> <p>19 Google or bad for Google?</p> <p>20 A. I can't speculate, but all I can say is</p> <p>21 they had some reason to opt out of that survey.</p> <p>22 Q. Well, you do speculate in your report in</p>

<p style="text-align: right;">Page 266</p> <p>1 paragraph 83, don't you?</p> <p>2 MR. SHEANIN: Objection. Form.</p> <p>3 THE WITNESS: Yeah, we just said this a</p> <p>4 minute ago.</p> <p>5 BY MS. DEARBORN:</p> <p>6 Q. Right. You say, "It is entirely possible</p> <p>7 that respondents who chose to have their responses</p> <p>8 excluded did not want Google to have access to</p> <p>9 their responses despite being told at the</p> <p>10 beginning that their responses would be</p> <p>11 anonymous."</p> <p>12 That's what you wrote, right?</p> <p>13 A. Yes.</p> <p>14 Q. And you're just speculating as to why</p> <p>15 respondents might have opted out, right?</p> <p>16 MR. SHEANIN: Objection. Form.</p> <p>17 THE WITNESS: Yes. Because it's</p> <p>18 systematic. It's not random -- a random response.</p> <p>19 They were specifically told something. And for a</p> <p>20 significant number of people, they decided to</p> <p>21 behave in a certain way, a consistent manner. So</p> <p>22 there has to be some reason for it.</p>	<p style="text-align: right;">Page 268</p> <p>1 thinking. I can only speculate. But there</p> <p>2 clearly was a reason.</p> <p>3 BY MS. DEARBORN:</p> <p>4 Q. But again, you haven't tested what that</p> <p>5 reason might be?</p> <p>6 MR. SHEANIN: Objection. Form.</p> <p>7 THE WITNESS: No, I have not.</p> <p>8 BY MS. DEARBORN:</p> <p>9 Q. Okay. We took a little bit of a detour</p> <p>10 away from the no-contact list, so let's go back to</p> <p>11 Exhibit [sic] I, please.</p> <p>12 A. Okay.</p> <p>13 Q. I'd like you to assume with me for a</p> <p>14 moment that Dr. Simonson could not conduct a</p> <p>15 survey that contacted the individuals in</p> <p>16 appendix I. Just posit that.</p> <p>17 A. Okay.</p> <p>18 Q. That he had a valid reason for doing</p> <p>19 that.</p> <p>20 A. Okay.</p> <p>21 Q. Is it your opinion that it is impossible</p> <p>22 to conduct a reliable survey of advertisers while</p>
<p style="text-align: right;">Page 267</p> <p>1 Whether my reason is correct or not is</p> <p>2 not the issue. The issue is there was a concern</p> <p>3 that -- when they found out that Google had</p> <p>4 sponsored the survey.</p> <p>5 BY MS. DEARBORN:</p> <p>6 Q. But the reasons for opting out in</p> <p>7 paragraph 83, that's just your speculation,</p> <p>8 correct?</p> <p>9 MR. SHEANIN: Objection. Form.</p> <p>10 THE WITNESS: Yes.</p> <p>11 BY MS. DEARBORN:</p> <p>12 Q. Why would a respondent think that their</p> <p>13 answers would harm Google in a survey that Google</p> <p>14 sponsored --</p> <p>15 MR. SHEANIN: Objection.</p> <p>16 BY MS. DEARBORN:</p> <p>17 Q. -- as you suggest here in paragraph 83?</p> <p>18 MR. SHEANIN: Objection. Form.</p> <p>19 THE WITNESS: Again, as you said, I'm</p> <p>20 speculating, but perhaps they are users of Google</p> <p>21 tools, Google Ads, and that Google might charge</p> <p>22 them a higher -- I don't know what they were</p>	<p style="text-align: right;">Page 269</p> <p>1 also excluding the entities in appendix I?</p> <p>2 MR. SHEANIN: Objection. Form.</p> <p>3 THE WITNESS: Of this magnitude, yes.</p> <p>4 BY MS. DEARBORN:</p> <p>5 Q. So you think no survey could have been</p> <p>6 done in this case that would have been</p> <p>7 methodologically sound if it was required that the</p> <p>8 entities in appendix I be excluded?</p> <p>9 MR. SHEANIN: Objection. Form.</p> <p>10 THE WITNESS: If -- under that</p> <p>11 assumption. But as I said before, it would be</p> <p>12 possible. You take one example, Walt Disney</p> <p>13 Company. How many thousands of people work for</p> <p>14 Walt Disney Company? Is every single person in</p> <p>15 that company aware of these issues?</p> <p>16 I still think you could -- I think it was</p> <p>17 a bad decision to exclude all these companies.</p> <p>18 And -- but what you would do is ask the questions</p> <p>19 about "do you know who the sponsor of this survey</p> <p>20 is" at the end. And if they're not, then it's</p> <p>21 fine to have them in the survey.</p> <p>22</p>

<p style="text-align: right;">Page 270</p> <p>1 BY MS. DEARBORN: 2 Q. Okay. I think that there's two separate 3 things going on here. Right? One is the 4 informed -- the fact that Dr. Simonson informed 5 respondents at the end of the survey as to its 6 sponsor and its purpose? 7 A. That's a different -- totally different 8 issue. 9 Q. Right. So I'm asking a much more narrow 10 question, which is, do you think no survey could 11 have been done in this case -- 12 A. The -- 13 Q. -- if it excluded the entities on 14 appendix I? 15 A. If you excluded them, yes, you could not 16 get a representative sample. But I'm saying 17 that -- is it impossible to do a survey? You 18 could, under the conditions I mentioned. 19 Q. Okay. So -- but in your example, you 20 would contact all of these individuals in 21 appendix I. You would just then ask them to guess 22 about the survey's respondents or --</p>	<p style="text-align: right;">Page 272</p> <p>1 Q. All right. Well, you understand 2 Dr. Simonson was surveying advertisers, right? 3 A. Yes. 4 Q. You understand that Dr. Simonson was not 5 conducting a survey of website publishers, right? 6 A. That's correct. 7 Q. Does appendix I include website 8 publishers? 9 A. I don't remember, to be honest. 10 Yes. 11 Q. And you understand that Dr. Simonson was 12 not conducting a survey of ad tech providers, 13 right? 14 A. Yes. 15 Q. Does appendix I include ad tech 16 providers? 17 A. I don't remember specifically. 18 Q. If you need to refresh your recollection, 19 you can look at page 1. 20 A. Page 1 of? 21 Q. Of appendix I. 22 A. Okay. And your question is?</p>
<p style="text-align: right;">Page 271</p> <p>1 A. Well, I wouldn't contact all of them. I 2 would have a representative sample that included 3 these, possibly. 4 Q. I see. Again, in your view, it was 5 impossible to do a survey in this case if 6 Dr. Simonson couldn't -- 7 A. Yes. 8 Q. -- contact the individuals in appendix I. 9 A. Yes. 10 Q. Okay. Now, one of the excluded companies 11 in appendix I is Google's parent company, 12 Alphabet, right? 13 A. Yes. 14 Q. You point this out in your report. 15 A. Yes. 16 Q. Are you saying Google should have 17 surveyed its own parent company? 18 A. No, I'm not saying that. But I'm saying 19 eliminating 580 companies is not necessary. 20 Q. Okay. Well, he didn't really eliminate 21 580 companies, did he, Dr. Hoyer? 22 A. That was my understanding, it was 580.</p>	<p style="text-align: right;">Page 273</p> <p>1 Q. Does appendix I, the no-contact list, 2 include ad tech providers? 3 A. Yes, it does. 4 Q. Okay. And it was not erroneous for 5 Dr. Simonson to exclude publishers or ad tech 6 providers from his survey population, right? 7 MR. SHEANIN: Objection. Form. 8 THE WITNESS: No, it was not. 9 BY MS. DEARBORN: 10 Q. Right. Because he was surveying 11 advertisers -- 12 A. Right. 13 Q. -- right? 14 So he didn't exclude 580 companies from 15 his survey population, did he? 16 A. I would have to go back and see how those 17 numbers were calculated. But the key issue is not 18 so much the number as the amount of revenue and 19 the amount of advertising that is done on ad tools 20 by the companies that -- by companies that were 21 excluded. 22 Q. Okay. How many advertisers did</p>

<p>Page 274</p> <p>1 Dr. Simonson exclude because they're listed in 2 appendix I? 3 A. I believe there was 580. I'd have to go 4 back and check the numbers. 5 Q. Well, 580 includes ad tech providers and 6 publishers, though, right? 7 A. I'm not sure. I don't remember. There 8 are, like, 580 in this table. 9 Q. Where did that number, 580, in your 10 report -- 11 A. I asked -- 12 Q. -- come from? 13 A. -- Brattle to calculate that for me. 14 Q. And what instructions did you give 15 Brattle to come up with the number 580? 16 A. To find out that -- the number of 17 advertising companies that were excluded. 18 Q. So you think 580 is the number of 19 advertising companies that were excluded from the 20 survey? 21 A. As I said, I'd have to go back and check. 22 Q. Okay. If it's significantly smaller than</p>	<p>Page 275</p> <p>1 580, would that surprise you? 2 MR. SHEANIN: Objection to form. 3 THE WITNESS: It would surprise me. But 4 again, the key issue is the amount of spending 5 that occurred. It's still a very significant 6 number that were excluded. And the amount of 7 revenue that -- Google's own revenue that comes 8 from those companies is substantial. 9 BY MS. DEARBORN: 10 Q. Okay. If the number 580 includes all of 11 the entities here in Exhibit I -- or, sorry, in 12 appendix I and is not advertisers, do you want to 13 revise your report? 14 A. It doesn't change my opinion. 15 Q. Would you like to revise that number in 16 your report? 17 A. If -- given the opportunity, yes. 18 Q. Okay. 19 A. But still the key conclusion is, for 20 example, 9 of the top 15 whales, which are the 21 largest ad spenders on Google Ads, were excluded. 22 That's significant, independent of 580 or any</p>	<p>Page 276</p> <p>1 other number. 2 And, you know, if you look at that 3 paragraph where that is quoted, there's a lot 4 of -- you know, it really adds to the 5 unrepresentativeness of the sample. 6 Q. Have you done any analysis as to whether 7 the results of Dr. Simonson's surveys would change 8 if the excluded companies in appendix I were, in 9 fact, included in the survey population? 10 A. I have not done that. 11 Q. Do you have a basis one way or the other 12 to opine as to the direction in which inclusion of 13 those individuals in the survey population would 14 have impacted the results? 15 MR. SHEANIN: Objection. Form. 16 Foundation. 17 THE WITNESS: Showing that your sample is 18 representative is his responsibility, not mine. 19 He should have shown that there were no 20 differences or that that is a valid sample. 21 He has provided, as far as I can see, no 22 evidence that his sample is representative of the</p>	<p>Page 277</p> <p>1 population. 2 BY MS. DEARBORN: 3 Q. Okay. Now, in previous surveys that you 4 have conducted, you have excluded certain members 5 of populations because you weren't able to contact 6 them for one reason or another, right? 7 A. Yes. 8 Q. Right. So in the credit union case that 9 you just mentioned, you excluded any respondents 10 who were a current member of the credit union, 11 right? 12 A. Yes. 13 MR. SHEANIN: Objection. Form. 14 BY MS. DEARBORN: 15 Q. Did you think the exclusion of members of 16 the credit union created a bias in your survey? 17 A. The population we were representing or 18 trying to generalize to were potential credit 19 union members. And so that's what we had. We had 20 a sample, representative sample, of credit union 21 members. 22 Q. Got it.</p>
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<p style="text-align: right;">Page 278</p> <p>1 MR. SHEANIN: And can I just say -- I</p> <p>2 just, again, want to caution you not to go into</p> <p>3 anything that would revel confidential information</p> <p>4 in that matter.</p> <p>5 MS. DEARBORN: To set Dr. Hoyer's mind at</p> <p>6 ease, the report is publicly available.</p> <p>7 MR. SHEANIN: Okay.</p> <p>8 MS. DEARBORN: So I don't think there's</p> <p>9 confidentiality concern here.</p> <p>10 BY MS. DEARBORN:</p> <p>11 Q. But of course I'm not asking you to</p> <p>12 violate your -- any confidentiality obligations</p> <p>13 that you're under, but I'm asking questions to</p> <p>14 which I believe the answers are public knowledge.</p> <p>15 A. Well, there was a reason for that, and</p> <p>16 the reason was we were testing a language of</p> <p>17 Vistar's agreement that, when people signed up for</p> <p>18 an account, they had to read that and understand</p> <p>19 the terms of that account. And people who are</p> <p>20 already members have already seen that account,</p> <p>21 and that doesn't give an indication of how well</p> <p>22 new members would understand that language.</p>	<p style="text-align: right;">Page 280</p> <p>1 A. Do you have the reference for it so I</p> <p>2 can --</p> <p>3 Q. I don't, unfortunately.</p> <p>4 It's a -- well, I have a study that you</p> <p>5 published in the Journal of the Academy</p> <p>6 of Marketing Science.</p> <p>7 A. Okay.</p> <p>8 Q. Does that jog your memory?</p> <p>9 A. No. I have had about 15 articles, or --</p> <p>10 Q. Okay. I'll ask it more generally.</p> <p>11 When you conduct surveys, as a general</p> <p>12 matter, it's usually appropriate to exclude</p> <p>13 minors, right?</p> <p>14 A. Yes.</p> <p>15 Q. And -- but minors make purchasing</p> <p>16 decisions, right?</p> <p>17 A. Yes.</p> <p>18 Q. Does the exclusion of minors from survey</p> <p>19 populations make the surveys any less reliable?</p> <p>20 A. It depends on what type of survey you're</p> <p>21 talking about. If it's an academic study, we</p> <p>22 aren't as concerned about representative [sic] of</p>
<p style="text-align: right;">Page 279</p> <p>1 MR. SHEANIN: Okay.</p> <p>2 THE WITNESS: So that's how we...</p> <p>3 MR. SHEANIN: I'd remind you to only</p> <p>4 respond to questions that were actually on the</p> <p>5 table and posed to you, and I don't believe there</p> <p>6 was one posed to you at that point.</p> <p>7 MS. DEARBORN: And I would request that</p> <p>8 counsel not coach the witness.</p> <p>9 BY MS. DEARBORN:</p> <p>10 Q. Okay. You've conducted surveys of</p> <p>11 purchasers of MP3s.</p> <p>12 Do you recall that?</p> <p>13 A. Yes.</p> <p>14 Q. And when you conducted a survey of</p> <p>15 consumers who purchased MP3s, you excluded from</p> <p>16 your survey population any individuals under the</p> <p>17 age of 18, right?</p> <p>18 A. Which study are you referring to? I</p> <p>19 remember vaguely, but I don't have a detailed</p> <p>20 memory of that.</p> <p>21 Q. It's a 2020 study that you did on MP3</p> <p>22 purchasing.</p>	<p style="text-align: right;">Page 281</p> <p>1 the sample. If it's a litigation survey where</p> <p>2 you're trying to draw specific conclusions about a</p> <p>3 population, and they are a significant buyer, then</p> <p>4 it is a problem.</p> <p>5 Q. Now, Dr. Simonson concludes that, to the</p> <p>6 extent the companies that he excluded, because</p> <p>7 they appeared on the no-contact list, are, on</p> <p>8 average, more sophisticated advertisers, then his</p> <p>9 results would likely to be conservative on key</p> <p>10 topics such as multi-homing and substitution.</p> <p>11 Do you have any reason to doubt that</p> <p>12 conclusion?</p> <p>13 A. Yes. He provides no evidence of that.</p> <p>14 Why would they be -- why would it be more</p> <p>15 conservative? I don't understand that comment.</p> <p>16 Q. Did you review the bases for</p> <p>17 Dr. Simonson's statement?</p> <p>18 A. I did, but I don't remember the</p> <p>19 specifics.</p> <p>20 Q. Did you disagree with him when you</p> <p>21 reviewed that paragraph in his report?</p> <p>22 MR. SHEANIN: Objection. Form.</p>

<p style="text-align: right;">Page 282</p> <p>1 THE WITNESS: To be perfectly honest, 2 that's a phrase that academics use all the time to 3 try to get them out of difficult situations 4 that -- it's not necessarily a valid statement, to 5 be quite honest. 6 BY MS. DEARBORN: 7 Q. Which phrase, the fact that -- 8 A. Likely to be conservative. 9 Q. It's not a phrase you've ever used 10 before, Dr. Hoyer? 11 A. Oh, I've used it. We all use it. But 12 that doesn't mean it's right. 13 Q. But still, you have no basis to disagree 14 with that conclusion in his report, despite the 15 fact that you question the use of the word 16 "conservative," right? 17 MR. SHEANIN: Objection. Form. 18 THE WITNESS: He doesn't provide detailed 19 reasons of why it would be conservative, and I -- 20 I would have to be convinced of his reasoning 21 before I would accept that statement. 22</p>	<p style="text-align: right;">Page 284</p> <p>1 Q. But you did not specifically disagree 2 with Dr. Simonson's conclusion that exclusion of 3 the companies on the no-contact list may have 4 rendered his survey results conservative, rights? 5 MR. SHEANIN: Objection. 6 BY MS. DEARBORN: 7 Q. That's not something that you said in 8 your report? 9 MR. SHEANIN: Objection to form. 10 THE WITNESS: I didn't say it in my 11 report. But since you're asking me, I don't -- I 12 can't accept that comment at face value. 13 BY MS. DEARBORN: 14 Q. All right. Let's look at paragraph 69 of 15 your report, please. 16 All right. And in this paragraph you 17 criticize Dr. Simonson because you say he has no 18 way to ascertain whether two, five, ten, or more 19 respondents in his final sample work for the same 20 company, right? 21 A. Yes. 22 Q. That's because, theoretically, people</p>
<p style="text-align: right;">Page 283</p> <p>1 BY MS. DEARBORN: 2 Q. Well, part of your assignment was to 3 review and respond to Dr. Simonson's report, 4 right? 5 A. Yes. 6 Q. And disagreeing with his statement that 7 exclusion of individuals on the no-contact list is 8 not a criticism -- strike that. 9 His conclusion that exclusion of the 10 companies on the no-contact list was likely to 11 make the results of his survey conservative is not 12 a conclusion that you challenge in your report, 13 correct? 14 A. I challenge that the sample is 15 unrepresentative, and we don't know how that 16 affected the survey. 17 But the issue -- it's not a valued [sic] 18 support because the purpose of a survey should be 19 to be able to draw valid conclusions on a 20 representative sample. And anything less than 21 that calls into question the reliability and 22 usefulness of the survey.</p>	<p style="text-align: right;">Page 285</p> <p>1 from different business units in the same company 2 could answer the survey? 3 MR. SHEANIN: Objection. Form. 4 THE WITNESS: Or from the same business 5 unit even. 6 BY MS. DEARBORN: 7 Q. Did you look at the data that 8 Dr. Simonson provided to determine how many 9 individuals from the same company answered the 10 survey? 11 MR. SHEANIN: Objection. Form. 12 Foundation. 13 THE WITNESS: I don't recall. I don't 14 remember seeing that. 15 BY MS. DEARBORN: 16 Q. Is that something you looked into? 17 MR. SHEANIN: Objection. Form. 18 Foundation. 19 THE WITNESS: I was just basing it on his 20 report that he didn't mention that there was any 21 effort to only have single individuals from each 22 company. I didn't see his description of that.</p>

<p style="text-align: right;">Page 286</p> <p>1 BY MS. DEARBORN:</p> <p>2 Q. And you had survey responses in raw data</p> <p>3 form provided by Dr. Simonson, right?</p> <p>4 A. Yes.</p> <p>5 Q. Did you look to see how many survey</p> <p>6 respondents were from the same company?</p> <p>7 MR. SHEANIN: Objection. Form.</p> <p>8 Foundation.</p> <p>9 THE WITNESS: I did not. This was not a</p> <p>10 burning issue. I spent more time on more critical</p> <p>11 issues.</p> <p>12 BY MS. DEARBORN:</p> <p>13 Q. Okay. So this isn't, standing alone, a</p> <p>14 reason why you think Dr. Simonson's report is</p> <p>15 unreliable?</p> <p>16 MR. SHEANIN: Objection. Form.</p> <p>17 Foundation.</p> <p>18 THE WITNESS: Correct.</p> <p>19 BY MS. DEARBORN:</p> <p>20 Q. Okay. And you -- we've talked at length</p> <p>21 about how Dr. Simonson's report or his survey</p> <p>22 asked respondents in the instructions to answer on</p>	<p style="text-align: right;">Page 288</p> <p>1 THE WITNESS: As I said, this is not a</p> <p>2 key burning issue that leads to my major -- my</p> <p>3 central conclusions.</p> <p>4 BY MS. DEARBORN:</p> <p>5 Q. Okay. But you agree that, in your</p> <p>6 example of Axe and Dove, it would have been</p> <p>7 appropriate for Dr. Simonson to include two</p> <p>8 members of the Unilever company, correct?</p> <p>9 A. In that specific context, yes.</p> <p>10 MR. SHEANIN: We've been going for about</p> <p>11 an hour. Would you like a break?</p> <p>12 THE WITNESS: We could. Yeah, I'm fine.</p> <p>13 MS. DEARBORN: I'm fine with that.</p> <p>14 MR. SHEANIN: Okay. Let's take a break.</p> <p>15 VIDEO TECHNICIAN: We're now off the</p> <p>16 record at 1:58 p.m.</p> <p>17 (A recess was taken.)</p> <p>18 VIDEO TECHNICIAN: We're now back on the</p> <p>19 record at 12 -- I'm sorry, 2:12 p.m.</p> <p>20 You may proceed.</p> <p>21 Y MS. DEARBORN:</p> <p>22 Q. Welcome back, Dr. Hoyer. I understand</p>
<p style="text-align: right;">Page 287</p> <p>1 behalf of their business unit, right?</p> <p>2 A. Yes.</p> <p>3 Q. And we talked about how Axe and Dove may</p> <p>4 have different marketing objectives?</p> <p>5 A. Yes.</p> <p>6 Q. So wouldn't it have been appropriate for</p> <p>7 Dr. Simonson to survey both a member of the Axe</p> <p>8 business unit and a member of the Dove business</p> <p>9 unit?</p> <p>10 MR. SHEANIN: Objection. Form.</p> <p>11 THE WITNESS: If they were in separate</p> <p>12 units, but there's no data to indicate that that</p> <p>13 occurred, that he -- I mean, he would have had to</p> <p>14 ask a question of, if it wasn't the same company,</p> <p>15 was it a different unit? And I didn't see any</p> <p>16 data in that regard.</p> <p>17 BY MS. DEARBORN:</p> <p>18 Q. You didn't see data in that regard, but</p> <p>19 you didn't look, right? We just talked about</p> <p>20 that.</p> <p>21 MR. SHEANIN: Objection. Form.</p> <p>22 Foundation.</p>	<p style="text-align: right;">Page 289</p> <p>1 from your counsel that you'd like to correct or</p> <p>2 clarify one of your prior answers.</p> <p>3 A. Yes.</p> <p>4 Q. Please feel free to do that.</p> <p>5 A. Yes. I accidentally misspoke when I</p> <p>6 mentioned that there was a high -- it's on</p> <p>7 paragraph 84 of my report.</p> <p>8 I misspoke. What -- I meant to say</p> <p>9 there's a higher percentage -- 50 percent higher</p> <p>10 percentage of response in the lower end [sic]</p> <p>11 survey that opted out versus the high end survey.</p> <p>12 I believe I accidentally reversed that, and -- it</p> <p>13 was just a mistake.</p> <p>14 Q. We're all human.</p> <p>15 A. Right.</p> <p>16 Q. We misspeak sometimes. Right?</p> <p>17 A. After speaking for hours, it -- right.</p> <p>18 Q. Yep. Thank you for the clarification.</p> <p>19 A. Yeah.</p> <p>20 Q. And understood.</p> <p>21 I try not to jump around too much, but I</p> <p>22 do just have a few clarifying questions about</p>

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<p style="text-align: right;">Page 290</p> <p>1 topics that we addressed prior to the break, so I</p> <p>2 hope you'll forgive me --</p> <p>3 A. Sure.</p> <p>4 Q. -- and if you at any point need to</p> <p>5 clarify my question, please ask. Okay?</p> <p>6 A. Okay.</p> <p>7 Q. Okay. At some point we discussed</p> <p>8 Dr. Simonson's disclosure at the end of the survey</p> <p>9 of the survey's sponsor and purpose, right?</p> <p>10 A. Yes.</p> <p>11 Q. And you said that it's fairly common to</p> <p>12 ask respondents to guess at the end of a survey</p> <p>13 about the survey sponsor and then exclude them if</p> <p>14 they guess correctly, right?</p> <p>15 A. Well, could I clar- --</p> <p>16 Q. Of course.</p> <p>17 A. We don't ask them, could you guess? What</p> <p>18 do you think? Not guess on it. We don't</p> <p>19 encourage them to come up with any random answer,</p> <p>20 but rather, what do you think the purpose of this</p> <p>21 survey was? Or, who was the sponsor of the</p> <p>22 survey?</p>	<p style="text-align: right;">Page 292</p> <p>1 as they're answering the questions, right?</p> <p>2 A. Yes.</p> <p>3 Q. You're not concerned about excluding a</p> <p>4 population of survey respondents at the end of the</p> <p>5 study simply because they correctly identified the</p> <p>6 survey sponsor.</p> <p>7 MR. SHEANIN: Objection. Form.</p> <p>8 THE WITNESS: Well, you would be -- what</p> <p>9 we would have to do -- in surveys I've done, if</p> <p>10 there is -- if there are people -- it's usually</p> <p>11 not a big problem, but if it is a problem, you've</p> <p>12 got to make sure the final sample is</p> <p>13 representative, so you must go back and get</p> <p>14 respondents to fit that category of what you set</p> <p>15 out as your sample to reflect the population.</p> <p>16 BY MS. DEARBORN:</p> <p>17 Q. Okay. But here, you have no reason to</p> <p>18 believe that respondents knew, while they were</p> <p>19 answering questions, that Google sponsored the</p> <p>20 survey, right?</p> <p>21 MR. SHEANIN: Objection. Form.</p> <p>22 THE WITNESS: We don't know, but it's</p>
<p style="text-align: right;">Page 291</p> <p>1 Q. Right. And if they answer correctly to</p> <p>2 that question at the end of the survey, then you</p> <p>3 exclude their results --</p> <p>4 A. Yes.</p> <p>5 Q. -- right?</p> <p>6 Do I understand you correctly that the</p> <p>7 reason you do that is because survey respondents</p> <p>8 who answer that question correctly would have had</p> <p>9 in their mind the survey sponsor while they were</p> <p>10 answering questions?</p> <p>11 A. Yes. They -- that is the major concern.</p> <p>12 It's also a major concern in academic studies</p> <p>13 because it's like a game. A lot of times it's</p> <p>14 college students or even -- we use panels as well.</p> <p>15 People are trying to guess what the purpose of the</p> <p>16 survey is. And it does alter the -- we have</p> <p>17 demand characteristics if people are concerned</p> <p>18 about who the sponsor -- you know, what they -- I</p> <p>19 want to be a good subject, I want to look good,</p> <p>20 and so I might alter my responses based on that.</p> <p>21 Q. Okay. So what you're concerned about is</p> <p>22 the -- what survey respondents have in their mind</p>	<p style="text-align: right;">Page 293</p> <p>1 possible. But there's no -- he didn't ask that</p> <p>2 question, so there's no way to determine that.</p> <p>3 BY MS. DEARBORN:</p> <p>4 Q. Okay. My question is a little different.</p> <p>5 You have no reason to believe that</p> <p>6 respondents knew, while they were answering</p> <p>7 questions, that Google sponsored the survey,</p> <p>8 correct?</p> <p>9 MR. SHEANIN: Objection to form. Asked</p> <p>10 and answered.</p> <p>11 THE WITNESS: Yeah, I don't have any data</p> <p>12 to know whether they did or not.</p> <p>13 BY MS. DEARBORN:</p> <p>14 Q. Okay. And nothing about the way that the</p> <p>15 survey was designed would suggest to survey</p> <p>16 respondents who sponsored the survey, right?</p> <p>17 MR. SHEANIN: Objection. Form.</p> <p>18 THE WITNESS: Not that I could see.</p> <p>19 BY MS. DEARBORN:</p> <p>20 Q. That's not one of your criticisms --</p> <p>21 A. No.</p> <p>22 Q. -- of Dr. Simonson's study, right?</p>

<p style="text-align: right;">Page 294</p> <p>1 MR. SHEANIN: Objection. Form.</p> <p>2 THE WITNESS: No, it is not one of my</p> <p>3 criticisms.</p> <p>4 BY MS. DEARBORN:</p> <p>5 Q. Okay. All right. We also talked about</p> <p>6 the excluded list of companies in appendix I, or</p> <p>7 what I would call the no-contact list, right?</p> <p>8 A. Yes.</p> <p>9 Q. And one of your concerns is that the</p> <p>10 no-contact lists include some very large</p> <p>11 companies, like members of the Fortune 100, right?</p> <p>12 A. Yes.</p> <p>13 Q. It is the case that Dr. Simonson's higher</p> <p>14 spend advertiser survey also included some very</p> <p>15 large companies, right?</p> <p>16 A. They include some. Yes.</p> <p>17 Q. Right. And he reproduced that in</p> <p>18 Exhibit 6 to his report?</p> <p>19 A. I don't recall the specific exhibit.</p> <p>20 Q. You're welcome to look at it if you need</p> <p>21 to, but --</p> <p>22 A. Is that in the report?</p>	<p style="text-align: right;">Page 296</p> <p>1 BY MS. DEARBORN:</p> <p>2 Q. It's actually more than 150 companies</p> <p>3 that spent more than \$30 million in advertising in</p> <p>4 the last 12 months?</p> <p>5 A. I believe that's correct.</p> <p>6 Q. So you'd agree that Dr. Simonson's higher</p> <p>7 spend advertiser survey included some very large</p> <p>8 companies, right?</p> <p>9 MR. SHEANIN: Objection. Form.</p> <p>10 THE WITNESS: My criticism is not that he</p> <p>11 included some. If you looked at the distribution</p> <p>12 of the actual spending of the entire population,</p> <p>13 my guess, the right end would be significantly</p> <p>14 higher and it would not look like this bell curve.</p> <p>15 It would look much -- particularly if you look at</p> <p>16 amount spent.</p> <p>17 So I'd say this end of -- the right end</p> <p>18 of this distribution is underrepresented.</p> <p>19 BY MS. DEARBORN:</p> <p>20 Q. So you indicated in your answer that</p> <p>21 that's your guess, right?</p> <p>22 A. Well, I know that they've excluded a</p>
<p style="text-align: right;">Page 295</p> <p>1 Q. Yes. Exhibit 6 to his report.</p> <p>2 A. Okay.</p> <p>3 Q. And this reproduces the answer to this</p> <p>4 QS10, the screener question 10, which asks,</p> <p>5 Approximately how much did your company spend in</p> <p>6 the last 12 months on all advertising, including</p> <p>7 all digital types?</p> <p>8 A. Uh-huh.</p> <p>9 Q. Right?</p> <p>10 A. Yes.</p> <p>11 Q. And this reflects the eventual population</p> <p>12 of Dr. Simonson's survey?</p> <p>13 A. I believe that's correct.</p> <p>14 Q. And there are a number of companies</p> <p>15 towards the right end of this graph -- that's a</p> <p>16 terrible question.</p> <p>17 There's over a hundred companies that</p> <p>18 spent more than \$30 million on advertising in the</p> <p>19 last 12 months, correct?</p> <p>20 A. I would assume so, yes.</p> <p>21 MR. SHEANIN: I -- okay.</p> <p>22</p>	<p style="text-align: right;">Page 297</p> <p>1 significant amount of revenue -- companies that</p> <p>2 account for -- like I said, 9 of the top 15 whales</p> <p>3 of Google's revenue are excluded.</p> <p>4 Q. But your view that this distribution is</p> <p>5 skewed, that's based on a guess, right?</p> <p>6 MR. SHEANIN: Objection. Form.</p> <p>7 Misstates testimony.</p> <p>8 THE WITNESS: I haven't had -- worked out</p> <p>9 numbers on that.</p> <p>10 BY MS. DEARBORN:</p> <p>11 Q. Right. You didn't conduct a study of the</p> <p>12 overall distribution of advertising spend in U.S.</p> <p>13 companies, correct?</p> <p>14 A. Well, I have some data in my report about</p> <p>15 the amount spent by companies that were excluded.</p> <p>16 I forget what paragraph it's in, but --</p> <p>17 Q. Right. We looked at that before. That's</p> <p>18 the --</p> <p>19 A. Right.</p> <p>20 Q. -- companies -- the amount companies</p> <p>21 spent with Google, right?</p> <p>22 A. Right.</p>

75 (Pages 294 - 297)

<p style="text-align: right;">Page 298</p> <p>1 Q. So you haven't done a study that looks at</p> <p>2 the distribution of advertising spend across all</p> <p>3 companies in the United States, correct?</p> <p>4 MR. SHEANIN: Objection. Form.</p> <p>5 THE WITNESS: Could you restate that</p> <p>6 question?</p> <p>7 BY MS. DEARBORN:</p> <p>8 Q. I'm not sure I can, but I'll say it</p> <p>9 again.</p> <p>10 You haven't done a study that evaluates</p> <p>11 the distribution of advertising spend across all</p> <p>12 companies in the United States, right?</p> <p>13 A. No, I have not done that study.</p> <p>14 Q. Okay. So you have no basis to say that</p> <p>15 the distribution in the higher spend advertising</p> <p>16 study that Dr. Simonson conducted is different</p> <p>17 from the distribution of advertising spend across</p> <p>18 companies in the United States, right?</p> <p>19 MR. SHEANIN: Objection. Form.</p> <p>20 THE WITNESS: Based on the data in my</p> <p>21 report, I would be very -- find it very hard to</p> <p>22 believe that his sample is representative of the</p>	<p style="text-align: right;">Page 300</p> <p>1 BY MS. DEARBORN:</p> <p>2 Q. Okay. I understand you have things that</p> <p>3 you want to say, and I understand the criticisms</p> <p>4 in your report. I really need to ask my questions</p> <p>5 and get an answer to my question, Dr. Hoyer. And</p> <p>6 I know you're not trying to be disrespectful, but</p> <p>7 I do need an answer to my question. All right?</p> <p>8 MR. SHEANIN: Counsel, he's answering</p> <p>9 your questions. You ask him your questions and</p> <p>10 he's giving you answer.</p> <p>11 MS. DEARBORN: That's --</p> <p>12 MR. SHEANIN: That's what you're entitled</p> <p>13 to in a deposition.</p> <p>14 MS. DEARBORN: I have asked my question,</p> <p>15 to which he has given nonresponsive answers, and</p> <p>16 so I'm going to ask my question again. And I will</p> <p>17 get an answer to my question because I think the</p> <p>18 answer to this one is fairly simple.</p> <p>19 BY MS. DEARBORN:</p> <p>20 Q. Dr. Hoyer, you have not done a study that</p> <p>21 evaluates the distribution of advertising spend</p> <p>22 amongst companies in the United States, correct?</p>
<p style="text-align: right;">Page 299</p> <p>1 types of -- the spending companies -- the</p> <p>2 companies in the population.</p> <p>3 BY MS. DEARBORN:</p> <p>4 Q. You say it's hard to believe, but you</p> <p>5 haven't done an analysis of that.</p> <p>6 A. It's formally hard to believe that --</p> <p>7 just based on my analysis and these numbers, it</p> <p>8 would be -- I strongly suspect that the sample is</p> <p>9 unrepresentative.</p> <p>10 Q. Okay. You said that you strongly</p> <p>11 suspect.</p> <p>12 You have not done a study to determine</p> <p>13 whether or not the sample that Dr. Simonson</p> <p>14 evaluated in his survey was, in fact,</p> <p>15 unrepresentative of the United States advertiser</p> <p>16 population, correct?</p> <p>17 MR. SHEANIN: Objection. Form.</p> <p>18 THE WITNESS: Again, I still maintain,</p> <p>19 based on the numbers I present in my report, that</p> <p>20 he has excluded very significant advertisers that</p> <p>21 account for a major portion of Google's business,</p> <p>22 and that produces an unrepresentative sample.</p>	<p style="text-align: right;">Page 301</p> <p>1 MR. SHEANIN: Objection. Form. Asked</p> <p>2 and answered.</p> <p>3 THE WITNESS: Do I -- I'm not sure --</p> <p>4 MR. SHEANIN: You can answer the</p> <p>5 question.</p> <p>6 MS. DEARBORN: Do not coach the witness.</p> <p>7 MR. SHEANIN: I --</p> <p>8 BY MS. DEARBORN:</p> <p>9 Q. Please answer the question.</p> <p>10 A. I have not done a formal study, but there</p> <p>11 is strong evidence.</p> <p>12 Q. And the strong evidence that you're</p> <p>13 citing, that's the material in your report that</p> <p>14 we've discussed previously, looking at the amount</p> <p>15 of --</p> <p>16 A. Yeah.</p> <p>17 Q. -- that advertisers spent with Google?</p> <p>18 A. Yes.</p> <p>19 Q. But you have -- that's spent -- okay.</p> <p>20 Strike that.</p> <p>21 All right. I'd like to turn to another</p> <p>22 of your criticisms of Dr. Simonson's report and</p>

<p style="text-align: right;">Page 326</p> <p>1 always games that subjects play. It's -- the key 2 is whether it's systematic demand characteristics. 3 BY MS. DEARBORN: 4 Q. Right. So you would agree that some 5 demand characteristics effect is minor? 6 MR. SHEANIN: Objection. Form. 7 THE WITNESS: The key issue is whether it 8 systematically influences results in a certain 9 way. And particularly, does it influence results 10 towards the hypothesis of the researcher? 11 BY MS. DEARBORN: 12 Q. Have you done any empirical analysis to 13 determine whether demand effects influenced 14 Dr. Simonson's study in a systematic way? 15 MR. SHEANIN: Objection. Form. 16 THE WITNESS: Yeah, I am not -- I did not 17 have the time to do a study of that nature. It 18 was not part of my assignment. 19 BY MS. DEARBORN: 20 Q. Would you agree that there's no such 21 thing as a perfect survey? 22 A. I would agree with that. But some</p>	<p style="text-align: right;">Page 328</p> <p>1 question that question as being vague. 2 MS. DEARBORN: Okay. Let's look at -- 3 let's do tab 30, please, Anita. Let's mark -- I 4 believe we're up to Exhibit 5. 5 (Hoyer Deposition Exhibit 5 marked for 6 identification and attached to the 7 transcript.) 8 BY MS. DEARBORN: 9 Q. Okay. We've marked as Hoyer Exhibit 5 an 10 article titled, "Service brand relationship 11 quality: Hot or cold?" 12 Do you recognize this document, 13 Dr. Hoyer? 14 A. Yes. 15 Q. What is it? 16 A. Yes. 17 Q. What is it? 18 A. It's an article I wrote with my Swiss 19 colleagues looking at -- it was mainly focused on 20 brand relationship quality. 21 Q. Do you stand by the results of this 22 paper?</p>
<p style="text-align: right;">Page 327</p> <p>1 surveys are much more flawed than others. 2 Q. Have you ever asked survey respondents 3 questions about what they would do in a response 4 to a price increase without specifying the amount 5 of that increase? 6 A. I don't do pricing research, so no, I 7 have not. 8 Q. Have you ever seen that asked? 9 MR. SHEANIN: Objection. Form. 10 THE WITNESS: Most typically -- again, 11 I've seen many studies. Studies that I can recall 12 seeing do specify an amount, like dollar amount or 13 percentage increase. 14 BY MS. DEARBORN: 15 Q. Have you ever seen a survey done that 16 asks respondents what they would do in response to 17 a price increase without specifying the dollar 18 amount or specific amount of the increase? 19 MR. SHEANIN: Objection. Form. Asked 20 and answered. 21 THE WITNESS: Not that I can recall. And 22 if I were a reviewer of a study, I would highly</p>	<p style="text-align: right;">Page 329</p> <p>1 A. Yes. 2 Q. Do you think the methodology you employed 3 was reliable -- 4 A. As far as -- 5 Q. -- in conducting a survey? 6 A. As far as I can recall, yes. 7 Q. Just because I'm watching the transcript 8 here, please let me finish my question before you 9 start your answer. Our transcript is going to be 10 a mess otherwise. 11 MR. SHEANIN: Yeah, if every one would 12 take a moment so that you could finish the 13 question, I can finish an objection and you can 14 get a good answer -- 15 THE WITNESS: Guilty, sorry. 16 MR. SHEANIN: I promise that our court 17 reporter would be appreciative. 18 BY MS. DEARBORN: 19 Q. Okay. So just to ask my question again, 20 you stand by the methodology that you employed in 21 conducting this study, correct? 22 A. Yes.</p>

<p style="text-align: right;">Page 330</p> <p>1 Q. All right. So this study involved a</p> <p>2 survey, right?</p> <p>3 A. Yes.</p> <p>4 Q. It involved a survey of consumers,</p> <p>5 correct?</p> <p>6 A. As far as I remember, yes.</p> <p>7 Q. And the survey questions are reproduced</p> <p>8 in appendix A, right?</p> <p>9 A. Yes.</p> <p>10 Q. And the only difference between the</p> <p>11 survey questions reproduced in appendix A and</p> <p>12 those you actually gave to survey respondents is</p> <p>13 that you actually substituted a brand in response</p> <p>14 to the Xs in this table, right?</p> <p>15 A. I believe so. This was done ten years</p> <p>16 ago, but yes, I think so.</p> <p>17 Q. Right. So, here, X was a brand of</p> <p>18 airline?</p> <p>19 A. Yes.</p> <p>20 Q. But otherwise, these were verbatim the</p> <p>21 questions that you gave to survey respondents,</p> <p>22 right?</p>	<p style="text-align: right;">Page 332</p> <p>1 But no, we did not change that question</p> <p>2 based on the previous scale.</p> <p>3 Q. And the previous scale, that's not a</p> <p>4 dollar figure scale, right? That's, like, a</p> <p>5 sliding scale from 1 to whatever, indicating the</p> <p>6 extent to which the respondent agreed with that</p> <p>7 phrase?</p> <p>8 MR. SHEANIN: Objection. Form.</p> <p>9 THE WITNESS: I don't remember if it was</p> <p>10 a sliding scale.</p> <p>11 BY MS. DEARBORN:</p> <p>12 Q. Okay.</p> <p>13 A. It's been ten years. I --</p> <p>14 Q. Well, you said the previous scale cited</p> <p>15 there, so I'm just trying to understand what that</p> <p>16 previous scale is.</p> <p>17 A. The Netemeyer, et al., 2004 scale.</p> <p>18 Q. And what is that scale? Can you describe</p> <p>19 it for me?</p> <p>20 A. Well, it's these two -- it's a scale to</p> <p>21 measure willingness to pay.</p> <p>22 Q. But how is -- what are the actual values</p>
<p style="text-align: right;">Page 331</p> <p>1 A. Technically, yes. It's an English</p> <p>2 translation. It was Swiss -- it was in German.</p> <p>3 Q. But you think this was accurately</p> <p>4 translated, correct?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. So I'd like to focus your</p> <p>7 attention midway down the page. There are two</p> <p>8 questions underneath the header "Willingness to</p> <p>9 pay a price premium."</p> <p>10 Do you see that?</p> <p>11 A. Yes.</p> <p>12 Q. And one of the questions that you asked</p> <p>13 consumers in this survey was, "The price of X</p> <p>14 would have to go up quite a bit before I would</p> <p>15 switch to another airline brand," right?</p> <p>16 A. Yes.</p> <p>17 Q. Did you put a specific value on the</p> <p>18 phrase "quite a bit" anywhere in this survey?</p> <p>19 A. This is a standard set of questions.</p> <p>20 "Willingness to pay" is a common term and is based</p> <p>21 on a previous scale that's cited there, Netemeyer,</p> <p>22 et al.</p>	<p style="text-align: right;">Page 333</p> <p>1 on that scale?</p> <p>2 A. I don't remember.</p> <p>3 Q. Is it a specific dollar amount?</p> <p>4 A. I can't remember, to be honest. It's ten</p> <p>5 years ago.</p> <p>6 Q. Just based -- looking at the language of</p> <p>7 this question --</p> <p>8 A. I mean, it might be -- I could take time</p> <p>9 to read the article, to go back and see what all</p> <p>10 the scales were, but I don't remember off the top</p> <p>11 of my head.</p> <p>12 Q. Well, you agree that the question that</p> <p>13 you asked survey respondents was, "The price of X</p> <p>14 would have to go up quite a bit before I would</p> <p>15 switch to another airline brand," right?</p> <p>16 A. Yes.</p> <p>17 Q. So the most likely scale that would allow</p> <p>18 respondents to answer that question is one that</p> <p>19 indicates their willingness to pay, right?</p> <p>20 Very -- strongly agree, do not agree, et cetera?</p> <p>21 MR. SHEANIN: Objection. Form.</p> <p>22 Foundation.</p>


<p style="text-align: right;">Page 334</p> <p>1 THE WITNESS: That's one way you could 2 measure it. You could also ask them -- and some 3 studies do -- how much would it have to go up 4 before I would switch to another brand? 5 BY MS. DEARBORN: 6 Q. That would be a different question, 7 though, right, Dr. Hoyer? 8 A. It would measure willingness to pay. 9 Q. But you would have to ask a different 10 question in order to evaluate how much the price 11 would have to go up in order for them to switch, 12 right? 13 A. Yes. 14 Q. All right. My colleague has helpfully 15 pointed out a portion of this article that might 16 refresh -- refresh your recollection as to the way 17 that the scale was worded. 18 If you could turn to page 96 of this 19 article, please. Under "Measures," the last 20 sentence of the first paragraph says, "With few 21 exceptions (i.e., consideration of set size, share 22 of wallet, and revenue per customer), all items</p>	<p style="text-align: right;">Page 336</p> <p>1 switch to another airline brand," right? 2 MR. SHEANIN: Asked and answered. 3 THE WITNESS: Yes. 4 BY MS. DEARBORN: 5 Q. And in answering that question, 6 respondents were required to indicate their 7 response on a sliding scale that went from 8 "strongly disagree" to "strongly agree"? 9 A. It's not a sliding scale. It's a 10 seven-point scale, and they circle one of the -- 11 or indicate one of the numbers from 1 to 7. 12 Q. I appreciate the clarification. 13 In order to answer the question "The 14 price of X would have to go up quite a bit before 15 I would switch to another airline brand," 16 respondents answered on a scale that went from 17 "strongly disagree" to "strongly agree"? 18 A. That's correct. 19 Q. And this question did not ask about a 20 specific dollar amount that the price would go up, 21 right? 22 A. It did not.</p>
<p style="text-align: right;">Page 335</p> <p>1 were measured with a seven-point Likert" -- 2 L-i-k-e-r-t -- 3 A. Likert. 4 Q. -- "type scale, anchored by 'strongly 5 disagree' and 'strongly agree.'" 6 Do you see that? 7 A. Yes. 8 Q. So the willingness to pay questions are 9 not one of the three exceptions that are listed 10 there, right? 11 A. That's correct. 12 Q. So the willingness to pay questions were 13 measured with a scale anchored by "strongly 14 disagree" and "strongly agree"? 15 MR. SHEANIN: Objection. Form. 16 Go ahead. 17 THE WITNESS: That's correct. 18 BY MS. DEARBORN: 19 Q. Okay. So again, to make sure we have a 20 clean record with that refreshed recollection, in 21 this survey you asked consumers, "The price of X 22 would have to go up quite a bit before I would</p>	<p style="text-align: right;">Page 337</p> <p>1 Q. And it didn't ask about a specific 2 percentage that the price would go up before they 3 would answer that question, right? 4 A. Yes. 5 MR. SHEANIN: Object to form. 6 THE WITNESS: Sorry. 7 BY MS. DEARBORN: 8 Q. Okay. And you do not think that asking 9 this question was unreliable in any way, right? 10 MR. SHEANIN: Objection to form. 11 THE WITNESS: I don't think it's the best 12 way we could have asked it. In retrospect, I 13 would have asked it differently, from what I know 14 now. But it's just one item on the whole study. 15 BY MS. DEARBORN: 16 Q. And you did not define the phrase "quite 17 a bit" in that question, right? 18 A. Correct. 19 Q. So you asked respondents, "The price of X 20 would have to go up quite a bit before I would 21 switch to another airline brand," without defining 22 the specific --</p>

<p style="text-align: right;">Page 338</p> <p>1 A. Yeah.</p> <p>2 Q. -- price increase, right?</p> <p>3 A. Yes.</p> <p>4 Q. The next question under this "Willingness</p> <p>5 to pay a price premium" section of questions says,</p> <p>6 "I am willing to pay a higher price for X than for</p> <p>7 other airline brands."</p> <p>8 Do you see that?</p> <p>9 A. Yes.</p> <p>10 Q. Did you define for survey respondents</p> <p>11 what a higher price was?</p> <p>12 A. I guess we did not.</p> <p>13 Q. Did you attach a specific dollar amount</p> <p>14 to that phrase?</p> <p>15 A. I'll be frank. Again, this was --</p> <p>16 Q. I appreciate it.</p> <p>17 A. No, we did not.</p> <p>18 Q. Did you attach a significant numerical</p> <p>19 value to that phrase? How about that?</p> <p>20 A. No.</p> <p>21 Q. Did you attach a specific percentage that</p> <p>22 the price would go up in connection with this</p>	<p style="text-align: right;">Page 340</p> <p>1 rejected on those grounds.</p> <p>2 BY MS. DEARBORN:</p> <p>3 Q. Thank you, Dr. Hoyer.</p> <p>4 Okay. Let's stay on paragraph 75 of your</p> <p>5 report, please.</p> <p>6 MR. SHEANIN: Are we done with this</p> <p>7 article?</p> <p>8 MS. DEARBORN: For the moment.</p> <p>9 MR. SHEANIN: Okay.</p> <p>10 MS. DEARBORN: I can't promise we won't</p> <p>11 return to it.</p> <p>12 BY MS. DEARBORN:</p> <p>13 Q. Okay. I'd like to focus your attention</p> <p>14 on paragraph 75(d).</p> <p>15 So in the second full sentence of this</p> <p>16 paragraph, you write, "Professor Simonson's</p> <p>17 hypothetical scenario solely focuses the</p> <p>18 respondents on the cost of display advertising and</p> <p>19 that of other digital advertising types. However,</p> <p>20 cost is but one of several factors that drive the</p> <p>21 choice of an advertising tool" -- and then you</p> <p>22 continue.</p>
<p style="text-align: right;">Page 339</p> <p>1 question to consumers?</p> <p>2 A. No, we did not.</p> <p>3 Q. And again, you think the answers you got</p> <p>4 to these questions were reliable?</p> <p>5 A. Well, as I just said, in retrospect, I</p> <p>6 would have asked these questions differently, but</p> <p>7 two wrongs don't make a right.</p> <p>8 Q. Was this paper peer reviewed?</p> <p>9 A. Yes.</p> <p>10 Q. And the peer reviewers of this academic</p> <p>11 paper that you co-authored didn't question the</p> <p>12 phrasing of that question, correct?</p> <p>13 A. Correct. Because we used an established</p> <p>14 scale that had been published elsewhere.</p> <p>15 Q. But they didn't question your decision</p> <p>16 not to attach dollar values or percentage</p> <p>17 increases to that "willingness to pay" set of</p> <p>18 questions, right?</p> <p>19 MR. SHEANIN: Objection to form.</p> <p>20 Foundation.</p> <p>21 THE WITNESS: Not that I can recall.</p> <p>22 Again, it's been ten years. But the paper was not</p>	<p style="text-align: right;">Page 341</p> <p>1 Do you see that?</p> <p>2 A. Yes.</p> <p>3 Q. I notice that you don't use the</p> <p>4 word "focalism" in this paragraph.</p> <p>5 I'm wondering, are you suggesting that</p> <p>6 Dr. Simonson's survey suffered from focalism bias?</p> <p>7 MR. SHEANIN: Objection to form.</p> <p>8 THE WITNESS: How do you define focalism</p> <p>9 bias?</p> <p>10 BY MS. DEARBORN:</p> <p>11 Q. Well, why don't you define it for me?</p> <p>12 A. I don't -- you mean focalism being</p> <p>13 focused too much on one topic? I don't remember</p> <p>14 the specific definition.</p> <p>15 But I'm not talking about focalism so</p> <p>16 much as the realistic nature of the scenario that,</p> <p>17 when advertisers buy display advertising, there</p> <p>18 are a number of key factors which they consider,</p> <p>19 the most important one being, does it reach my</p> <p>20 target?</p> <p>21 And the reason that's important is</p> <p>22 because, even if there was a small increase in</p>

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1 Q. How would you go about determining
2 whether or not different people from the same
3 company or from different business units within
4 the same company took the survey?
5 A. You would need a question or data on
6 that. And in his instructions, he -- it is
7 completely anonymous. And looking back at the
8 backup data, there was no question on what company
9 they were from, so there's no way to evaluate
10 that.
11 MR. SHEANIN: Thank you. I have no
12 further questions.
13 MS. DEARBORN: Nothing further.
14 VIDEO TECHNICIAN: Okay. This now ends
15 the deposition of Dr. Wayne Hoyer. We're off the
16 record at 5:16 p.m.
17 (Whereupon, at 5:16 p.m., the videotaped
18 deposition of WAYNE D. HOYER, Ph.D., was
19 concluded.)
20
21
22

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1 CERTIFICATE OF NOTARY PUBLIC
2 I, CHRISTINA S. HOTSKO, the officer before
3 whom the foregoing deposition was taken, do hereby
4 certify that the witness whose testimony appears in
5 the foregoing deposition was duly sworn by me; that
6 the testimony of said witness was taken by me in
7 stenotypy and thereafter reduced to typewriting under
8 my direction; that said statement is a true record of
9 the proceedings; that I am neither counsel for,
10 related to, nor employed by any of the parties to the
11 action in which this statement was taken; and,
12 further, that I am not a relative or employee of any
13 counsel or attorney employed by the parties hereto,
14 nor financially or otherwise interested in the
15 outcome of this action.
16 Dated: March 6, 2024
17
18 
19 CHRISTINA S. HOTSKO
20 Notary Public in and for the
21 District of Columbia
22 My commission expires:
23 1 January 2027

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